follows: At "Prepare for Action," the jumpers release and extend their safety belts; at "Stand Up," they stand and hook their static lines onto a metal clip attached to the cable, grip a leather strap attached to it, and do not touch the static line again. The next commands are "Check Equipment," and "Tell Off for Equipment Check." On "Action Stations," each stick moves toward its assigned door with the first jumper turning into the door and placing his leading hand on the door frame, his other arm across the top of the reserve. At the command "Red On," the lead arm is placed over the other, and approximately ten seconds later the green light comes on and the command "GO" is given. The lead jumper takes two steps on exiting. Only the first jumper in a stick touches the aircraft door. Each of the others releases his strap and folds the arm that has been holding the strap over the other arm, which is already on top of the reserve, as he turns into the door. A three-second "compulsory

count" takes place before a jumper checks his canopy and conducts all around observation.

Steering the parachute away from other jumpers is emphasized and practiced on every jump. Also emphasized is looking at the ground during descent and turning the feet in the proper landing attitude, depending on the direction of drift. For example, in a right forward landing the toes are turned upward at a 45-degree angle to the left to facilitate the proper initiation of a right-front PLF (parachute landing fall). For a rear landing, the toes are turned in the direction of drift.

The initial aircraft jumps are made with single sticks of six jumpers; the later ones involve larger sticks and simultaneous exits from both jump doors. During simultaneous exits, the jumpers on one side wear white parachutes while those on the other side wear green, which enables the PJIs on the drop zone to observe them better. Eight jumps are offered, in-

cluding night jumps and equipment jumps, with ground training continuing between jumps.

No. 1 PTS teaches all aspects of military parachuting from basic static line through advanced high-altitude free-fall. It has graduated more than one million paratroopers and has served as the model for the airborne schools of numerous nations. The superb training and the international reputation of Britain's Airborne School is a tribute to the professionalism of its cadre and to the soundness of its motto, "Knowledge Dispels Fear."



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A Heavy Mortar for A Light Division

CAPTAIN ARTHUR A. DURANTE

The 82d Airborne Division is one of the finest fighting units in the United States Army. It can move rapidly to almost any place in the world and can be ready to fight when it gets there.

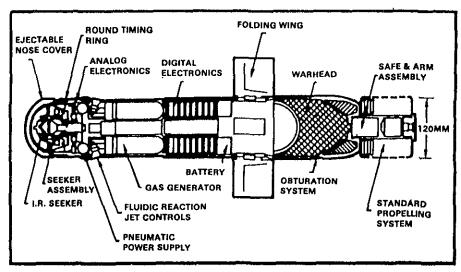
But I believe it would be a more effective fighting force if 120mm Tampella mortars were substituted for the 105mm howitzers in the division's field artillery units and for the

4.2-inch mortars in its heavy mortar platoons.

No major organizational changes would be involved. The crew members in the division artillery's nine Tampella mortar batteries, for example, would continue to hold artillery MOSs and to conduct field artillery indirect fire support missions, and the heavy mortar platoons armed with the

Tampella would remain organic parts of the division's nine infantry battalions and its one armor battalion. The Tampella, therefore, would be used in more than the infantry support role the venerable 4.2-inch mortar now performs at the infantry battalion level.

The Tampella, which is produced in Israel, is available in a towed version



120mm guided antiarmor mortar projectile.

that weighs 763 pounds or a ground-mounted version that weighs 539 pounds. It fires conventional, smoke, and illumination rounds plus a Super Tampella (ST) high explosive round made of a plastic matrix and steel pellets (for better fragmentation coverage of a target area). It is effective, accurate, air transportable, and simple to operate, and it needs only a small crew.

The 120mm mortar would have several advantages over the 105mm howitzer. First, replacing the 105mm howitzer with the mortar would reduce the 82d's deployment requirements by about 67 tons. At the same time, the division artillery's firepower would be increased, because the 120mm mortar gives more than eight times as much coverage per round than the 105 does. It would be more lethal, too, since the ST high explosive ensures perfect fragmentation. Still another advantage would lie in the Tampella's special missions capability, which would give the division a better illumination and smoke capability.

Some of these same advantages apply to the replacement of the 4.2-inch mortar as well: The 120mm is lighter and has greater lethality than the 4.2-inch. In addition, it has a greater range.

There is still another significant advantage in replacing both of these weapons with the Tampella. It would

mean that both the division artillery units and the infantry battalions they support would use the same type of ammunition. This would simplify logistics when supplying the division in an airhead.

Additionally, the M106A2 tracked carriers of the armor battalion's heavy mortar platoon could be modified to tow the 120mm mortar, which would allow the vehicle to carry larger amounts of 120mm ammunition inside. It is true that the cross-country capability of these vehicles would be diminished by the towed mortar, but since an airborne division (after airdrop) moves mainly on foot anyway, this reduction of capability would still be acceptable. Certainly the armor battalion needs a highly mobile indirect fire capability, but an armor unit supporting a completely dismounted infantry division is not expected to operate over the extended distance or at the cross-country speed of the typical tank battalion.

In the infantry battalions, the substitution of the 539-pound Tampella for the 672-pound 4.2-inch mortar would mean either that almost three tons of additional ammunition could be carried, or that the division's deployment tonnage requirements could be reduced accordingly.

One of the strongest of my reasons for proposing the 120mm mortar is its potential for employment as an antitank weapon through the use of the

guided antiarmor mortar projectile (GAMP) round.

The GAMP round, a passive infrared seeking, smart munition, does not require any special fire direction center procedures; it needs no laser designation; and it is not affected by the countermeasures used against Hellfire, Copperhead, or radarguided Maverick missiles. Its hemispherical warhead can defeat any Threat main battle tank. It has a microprocessor that allows it to identify and ignore armored vehicles that have already been hit and to go on to attack only operational vehicles.

Although the GAMP is a developmental round, it is based on proved technology and is considered a "low-risk" program with a high probability of success. (GAMP rounds for the 4.2-inch mortar and the 105mm howitzer are being considered, but these have smaller warheads and their rifled barrels impose a spin on them, which has to be negated. The 120mm has no spin.)

The Tampella is a combat-proved weapon. Besides Israel, the armies of two NATO countries (Germany and Turkey) and also Ghana, Iran, and Singapore use it.

Tampella platoons would improve the 82d Airborne Division's combat capability. They would be capable of defeating enemy armor out to 10,500 meters, firing ST high explosive, smoke, and illumination rounds at 15 rounds per minute, and using current vehicles while also decreasing the division's deployment tonnage requirements. The division could deploy its units quickly to counter an enemy thrust and still retain the ability to defeat enemy armored formations.

The Tampella provides a lightweight logistical package that improves antipersonnel and antiarmor capabilities. In short, it is the best available heavy mortar for a light division.

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